

September 2015

In This Issue

- [Getting Back to Our Roots](#)
- [Fermenting Vegetables: Food Safety Counts!](#)
- [Make Your Own Sauerkraut](#)
- [End of Season Relishes](#)
- [Canning Game Meat](#)
- [Apple Varieties](#)
- [Preserving Apple Butter](#)
- [Apple Cider](#)
- [Can Potatoes be Frozen?](#)
- [Winter Squash-Acorn, Buttercup, Butternut, Hubbard-Freeze Well!](#)
- [Shelf Life of Home Preserved Foods](#)
- [Frequently Asked Questions](#)

Preservation Resources

University of Minnesota Extension -
<http://z.umn.edu/ylm>

Making Sauerkraut:
<http://z.umn.edu/zff>

Preserving Winter Squash
<http://z.umn.edu/zfg>

National Food Preservation Center -
<http://nchfp.uga.edu/>

Answerline: 800-854-1678
for your home food
preservation questions

Getting Back to Our Roots

Rutabagas, turnips, parsnips, sweet potatoes or yams; included any of these root vegetables in your meals lately?

These vegetables plus beets, potatoes and carrots sustained our ancestors for centuries through many a cold winter.

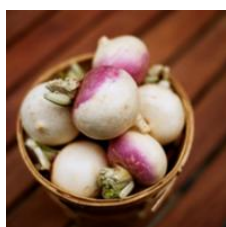


If we didn't grow up eating root vegetables, other than potatoes (yes, potatoes are technically a tuber, but they fit well with this category of vegetables!) or carrots, they may seem foreign or old fashioned to us.

We can broaden our vegetable horizon by adding beets, sweet potatoes, or a rutabaga potato dish to our meals. They add a wealth of flavor and nutrients to our diet.

Carrots, sweet potatoes, and yams, with their rich deep yellow and orange color, are excellent sources of vitamin A. The white root vegetables are sources of potassium, vitamins and carbohydrates. Beets do contain iron and the greens are rich in vitamin A.

What do you do with a rutabaga? First, if you are not familiar with it, you may need to do some identification of rutabagas, turnips and



parsnips. Parsnips look like white carrots. Turnips are white with a lavender, pink top on the outside and white on the inside. They are also shaped like tops, the children's toy. Rutabagas are the largest of the lot, golden yellow on the outside with a creamy yellow flesh.

Root vegetables are often combined with or substituted for potatoes in many countries. They are a tasty addition to vegetable soups.

The recommended preservation methods vary by the vegetable. Many can be canned or frozen or pickled, such as beets or carrots. Check recommended guidelines to ensure a safe quality product. Remember, they are all low-acid vegetables, requiring pressure processing if canned and blanched if frozen.

Another option for preserving root vegetables? The age-old method used by our ancestors for generations: storage in a cool, moist root cellar. To learn more read *Harvesting and Storing Home Garden Vegetables* on the University of Minnesota Extension website:
<http://z.umn.edu/zfe>

Fermenting Vegetables: Food Safety Counts!

What do sauerkraut, kimchee, cheese, yogurt, salami, bread, along with beer and wines have in common? Their natural tart flavor or “tang” is created by a fermentation process. Fermentation has become what USDA calls a “movement that’s picking up speed”.



Sauerkraut and genuine (crock) dill pickles are familiar home preserved fermented vegetables. Lactic acid created during fermentation, with the addition of salt, imparts tartness to the food and inhibits bacteria. This differs from pickling, where vinegar is added to preserve vegetables.

Begin with a research-based, tested recipe for safe, quality fermented vegetables. These recipes address the key factors you can control—salt concentration, temperature, and lack of air.



Salt is essential. Measure canning or pickling salt carefully as the proportion of salt to vegetables determines bacteria activity and helps keep vegetables from becoming soft.

Ferment at temperatures of 68-72°F, although 60-78°F may work. If the temperature is too high, spoilage bacteria will ruin the fermentation. At lower temperatures, the process may not start.

The good bacteria which ferment cabbage grow best in a low-oxygen environment. Seal the container following the recipe options.

Food safety counts! Start the fermentation process with fresh, quality clean vegetables. Always wash produce, wash your hands, wash utensils and surfaces to insure a safe product.

Make Your Own Sauerkraut

Sauerkraut can easily be made and preserved at home. Use a researched tested recipe, as the proportion of salt to cabbage is critical to the quality and safety of sauerkraut.

To make good sauerkraut, begin by selecting disease-free, firm, sweet, mature heads of cabbage from mid- and late-season crops. Clean and shred the cabbage within 24 to 48 hours of harvest. A kraut cutter is the traditional way to shred the cabbage, but a food processor works too.



Canning or pickling salt draws out the cabbage juice to ferment. For every 5 pounds of shredded cabbage, mix in 3 tablespoons of salt.

Old-fashioned crocks are a good choice for sauerkraut as long as they are not cracked or chipped. Food-grade plastic pails make excellent containers. Do **not** make sauerkraut in metal containers of any type, or in plastic containers that were never intended for food use.

Once the salted cabbage is packed tightly into the container, cover the cabbage and liquid to exclude air, since the fermentation process requires an anaerobic (air-tight) condition. A salt-water (brine-filled), food-grade plastic bag is an easy way to both cover and weigh down the cabbage. Stored at 68-74°F while fermenting, the sauerkraut will be ready in 3-4 weeks.



Sauerkraut may be canned or frozen. To can, fill jars with kraut and cover with juices, leave ½ inch headspace; wipe jar rims; adjust lids and process in a boiling water bath; pints for 20 minutes and quarts for 25 minutes.

To freeze sauerkraut, fill freezer bags or plastic freezer containers to 1-2 inches from the top, squeeze out air, seal, and label. Freeze for 8-12 months.

End of the Season Relishes

If your garden has a variety of end-of-the-season vegetables and/or green tomatoes, consider creating vegetable relishes. Relishes are made by cooking chopped vegetables and/or fruits in a spicy vinegar solution. Look at the long list of recipes from the National Center for Home Food Preservation: <http://z.umn.edu/relish>.



“Fresh Dill Cucumber Relish” is a relish that uses a food processor for chopping the vegetables, is a great condiment with hot dogs, brats, burgers, chicken and with chips as a “relish salsa”. Try stirring some relish into softened cream cheese or mayonnaise to create dips or sauces. <http://z.umn.edu/dillrelish>.

Canning Game Meat

When canning game meat such as venison, **never** use any canning method but pressure canning for the time recommended.



Venison is a low acid food like beef or pork, and must be processed in a pressure canner to reduce the risk of botulism.

Choose high quality meat and keep it cool until ready to can. Trim the fat off meat before canning. Excess fat left on the meat will melt and rise to the top during processing. If the fat comes in contact with the sealing edge of the lids, the jar may not seal.

Venison is processed in pint or quart jars. The processing time ranges from 75 minutes to 90 minutes at 11 or 15 pounds pressure. For venison or bear you can follow the time and pressure given for cubed or ground beef or pork.

For more information, visit the University of Minnesota Extension publication: Safe Home Canning of Meats at <http://z.umn.edu/zgj>.

Apple Varieties

It is apple season! Prairie Spy for cooking? Honeycrisp for fresh eating? Fireside for baking? How do you know which local apple to use for which purpose? [*Apples for Minnesota and Their Culinary Uses*](#) is the University of Minnesota Extension publication to answer your apple questions.

It will help you select which variety to use for cooking, baking, eating fresh, or salads and how to store apples for winter use.



Canning, freezing and drying apple instructions are also found in this publication. Enjoy the crisp, juicy apples of the season!

Preserving Apple Butter

Apple butter is becoming more popular and there has been a lot of interest in making it without added sugar. Artificial sweeteners can be used to sweeten the apple butter. The recipe, “Reduced Sugar Apple Butter” from National Center for Home Food Preservation <http://z.umn.edu/applebutter> is a tasty product and enhances your favorite apple flavor.

If you are interested in preserving apple butter with white and brown sugar, check out the following “Apple Butter” recipe and preservation instructions: <http://z.umn.edu/applebutter2>.

Apple Cider



Apple cider should be pasteurized and kept refrigerated to prevent growth of spoilage yeasts and molds. Although pasteurization (heat treatment) kills many spoilage microorganisms, there is a good chance there are still spoilage organisms that may grow rapidly at room temperature. To be safe, it is a good idea to buy cider that is refrigerated.

Can Potatoes be Frozen?

Yes, potatoes can be frozen. The question is in which form: cubed, mashed, French fries or hashbrowns? Potatoes can be frozen in any of these forms, yet the quality will vary.



Hashbrowns seem to be the method that home preservers are most pleased with. Simply boil potatoes in their jackets until a fork can pierce, drain, cool, peel and shred. To freeze, spread on cookie sheet and package when frozen, or shape into patties and package.

Winter Squash-Acorn, Buttercup, Butternut, Hubbard-Freeze Well!



Select firm, mature squash with a hard rind. Wash, cut into cooking-size sections and remove seeds. Cook until soft in

boiling water, in steam, or in an oven. When soft, remove pulp from rind and mash. To cool, place pan containing squash in cold water and stir occasionally. Package, leave 1/2- inch headspace, seal and freeze.

Shelf Life of Home Preserved Foods

Storage conditions do affect the length of shelf-life of your home-preserved foods. To store canned food wisely: Store in a cool, clean, dry place with temperatures from 50° to 70°F.

Avoid storing canned foods in a warm place near a furnace, or in direct sunlight. Light can cause color changes and nutrient loss in foods canned in glass jars. For best quality, use within one year.

For the best quality frozen foods, use quality freezer containers, maintain the freezer temperature at 0°F or lower and use within 8 to 12 months.

Frequently Asked Questions

When are the best times to pick fruits and vegetables for preserving?

Harvest produce early in the morning or during the coolest time of the day. For best quality, try to freeze or can vegetables as soon as possible after picking. If you must hold produce, keep them refrigerated. Research has shown that peas held 4 hours at room temperature before blanching lost 50% of their sugar content.

What do I do if there's mold on my jelly?

Discard jams and jellies with mold on them. The mold could be producing a mycotoxin (toxic substance that can make you sick). Toxins can easily spread throughout the entire jar, making the gel unfit to eat. USDA recommends against scooping out the mold and using the remaining jam or jelly.

What is freezer burn?

Freezer burn is drying that occurs on the surface of a frozen product if it is improperly wrapped or sealed. The food is safe to eat but poor quality. To prevent freezer burn, the package or container must be free of air and sealed airtight.

When does the processing time start?

In a boiling water bath, the processing time begins when the water comes to a full boil. In a pressure canner, the processing time begins when the canner reaches the designated pressure.

Photos: National Food Preservation Center; University of Minnesota Extension

For more food safety information visit our website:
extension.umn.edu/food-safety.

If you would like to stop receiving the Home Food Preservation newsletter, please email
schmi374@umn.edu.